

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The Information Disclosure Statements

The prior art cited in the information disclosure statements filed on 2/6/2009, 2/3/2009, 7/27/2007, 6/21/2006 and 4/12/2006 has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 6 are not clear whether the applicant is claiming the noble metal or the precursor thereof per se. It appears that both claims depend on claim 1 where the said compounds are attached to the sample of interest to perform surface plasmon resonance measurements. Appropriate clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seher (US Patent # 5,341,215) in view of Koike et al. (US Patent # 7,358,363 B2) [hereinafter Koike].

As to claim 1, Seher teaches a method for measuring a surface plasmon resonance, comprising: irradiating a light to the prism to detect a reflected light (Figs. 1 and 2; column 9, lines 49-68).

Seher is silent to placing a noble metal compound on a bottom face of a prism, wherein, the noble metal compound has substituents of following formula (I) on a side

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opposite to a side contacting the prism. Koike teaches Zinc complexes capable of capturing substances having anionic substituents to provide a safe and inexpensive substance which binds to an anionic substituents for detecting said captured substance (column 2, lines 10-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a zinc complex compound to the invention of Seher in order to provide a safe and inexpensive substance which binds to a sample of interest in order to enhance detection of said sample.

As to claim 2, Seher teaches a method for measuring a surface plasmon resonance, comprising: using Raman spectroscopy (column 6, line 20).

Seher is silent to adding a noble metal compound having substituents of formula (I) on a surface thereof to a subject sample. Koike teaches Zinc complexes capable of capturing substances having anionic substituents to provide a safe and inexpensive substance which binds to an anionic substituents for detecting said captured substance (column 2, lines 10-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a zinc complex compound to the invention of Seher in order to provide a safe and inexpensive substance which binds to a sample of interest in order to enhance detection of said sample.

As to claims 3-5, Seher teaches a surface (7, Fig.1). Seher is silent to the noble metal compound having substituents of following formula (I) on a surface thereof, said noble compound having a film shape; particle shape. Koike teaches Zinc complexes

capable of capturing substances having anionic substituents to provide a safe and inexpensive substance which binds to an anionic substituents for detecting said captured substance (column 2, lines 10-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a zinc complex compound in either film or particle shape to the invention of Seher in order to provide a safe and inexpensive substance which binds to a sample of interest in order to enhance detection of said sample.

As to claims 6-8, Seher teaches a surface (7, Fig.1). Seher is silent to the precursor compound having substituents of following formula (VII) on a noble metal surface compound that have a film or particle shape. Koike teaches the precursor compound having substituents of following formula (VII) (column 5, line 23-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a precursor compound having substituents of following formula (VII) in either film or particle shape to the invention of Seher in order to provide a safe and inexpensive substance which binds to a sample of interest in order to enhance detection of said sample.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdullahi Nur whose telephone number is **571 270 1298**. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury, can be reached on **571 272 2887**. The fax phone

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number for the organization where this application or proceeding is assigned is **571 273 8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A.N./

Abdullahi Nur

Patent Examiner,

Art Unit 2877

/TARIFUR R CHOWDHURY/

Supervisory Patent Examiner, Art Unit 2886